

Highlights



Children
Paralyzed
by polio



Sewage
water
sampling

2021

- 05 cases of Wild Polio 1
 - 04 in Afghanistan
 - 01 in Pakistan

- 118 cases of cVDPV2
 - 43 in Afghanistan
 - 08 in Pakistan
 - 01 in Somalia
 - 66 in Yemen

- 03 cVDPV1 cases
 - All in Yemen

2021

- 66 samples Wild Polio 1
 - 01 in Afghanistan
 - 65 in Pakistan

- 107 samples cVDPV2
 - 40 in Afghanistan
 - 35 in Pakistan
 - 12 in Egypt
 - 01 in Iran
 - 01 in Somalia
 - 05 in Djibouti
 - 13 in Yemen

2022

- 18 cases of Wild Polio 1
 - 01 in Afghanistan
 - 17 in Pakistan

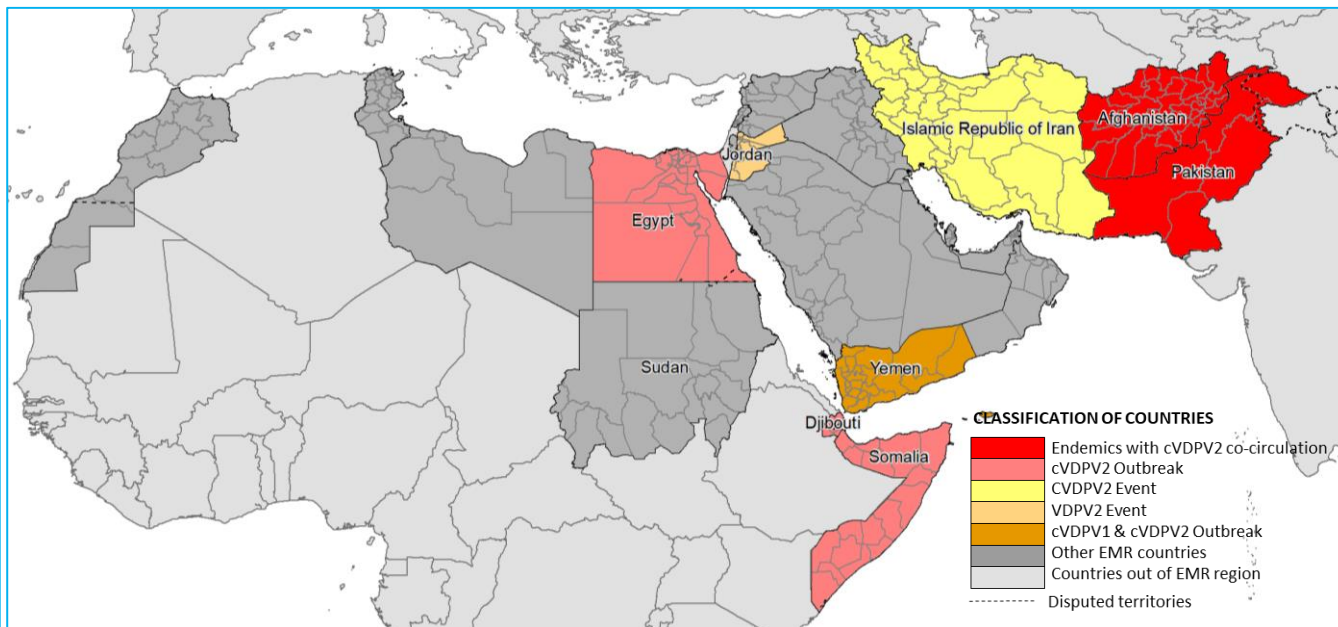
- 130 cases of cVDPV2
 - 03 in Somalia
 - 127 in Yemen

- Zero case of cVDPV1
(No cVDPV1 for the last 17 months)

2022

- 24 samples Wild Polio 1
 - 02 in Afghanistan
 - 22 in Pakistan

- 23 samples of cVDPV2
 - 05 in Egypt
 - 12 in Djibouti
 - 03 in Somalia
 - 03 in Yemen



Highlights of the week

Pakistan: Five new WPV1 positive environmental samples were reported this week. Three from Khyber Pakhtunkhwa province (Bannu, Peshawar & Swat districts), one each from Punjab province (Lahore district) and from Sindh province (Khilandhi district), with specimen collection dates ranging between 19-24 August 2022.

Yemen: Eight new cVDPV2 cases reported from 4 provinces. Four from Sanaa, Two from Al Mahaweet, and one from each of Saddah & Ibb. The dates of onset ranging between 17th June – 18th July 2022.

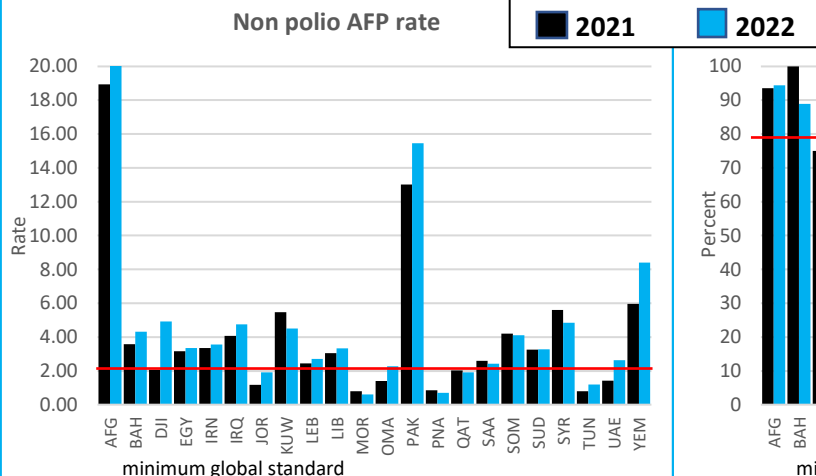
Iran: Advance notification of a new PV2 positive environmental surveillance sample from Zehedan province – specimen collection date 27th August 2022.

United Kingdom: Two new positive cVDPV2 environmental samples were reported with a dates of sample collection on 24th & 31st of May 2022, in addition to 06 new VDPV2 isolates. All isolates are from the environment sampling sites of London. The UK had declared an outbreak of cVDPV2 on 05th September 2022.

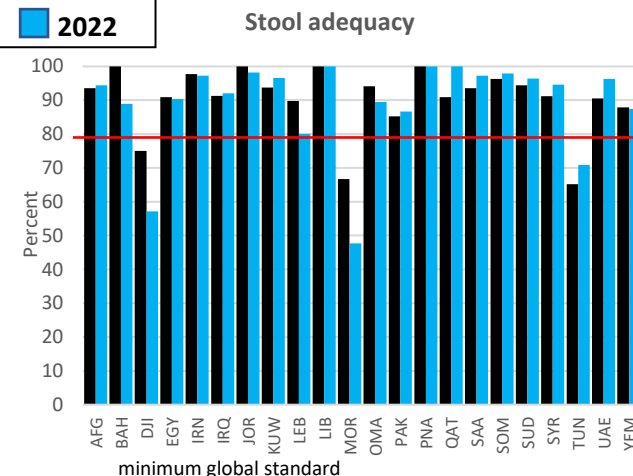
Regional activities: A training of the Ministry of Health Focal persons and National Certification Committee (NCC) members of 12 countries on the newly developed web-based Electronic Annual Certification Reports (e-ACR) was successfully convened from 6-8 September 2022.

Wild Poliovirus type-1 (WPV1) Vaccine-derived Poliovirus (VDPV)

Non polio AFP rate

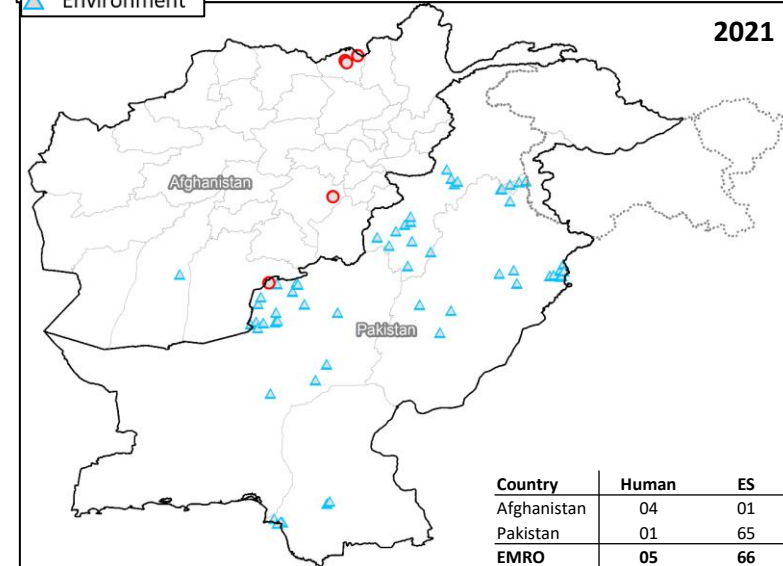
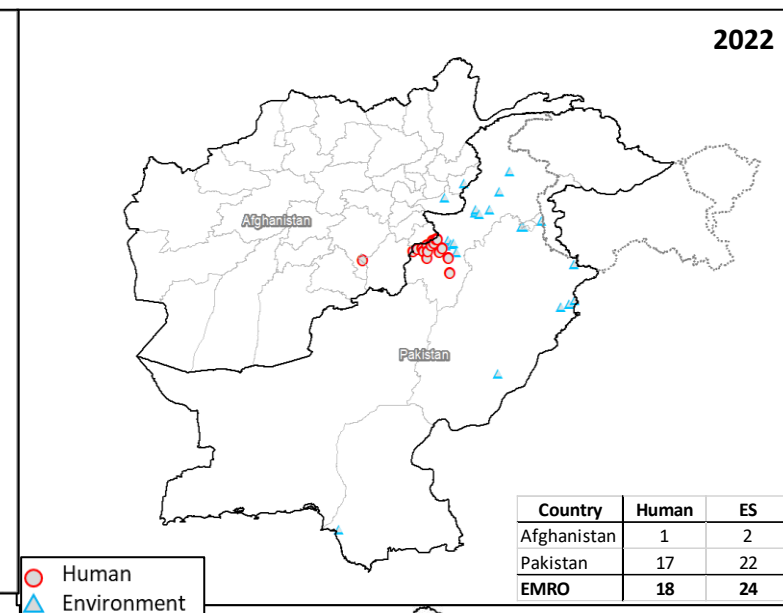
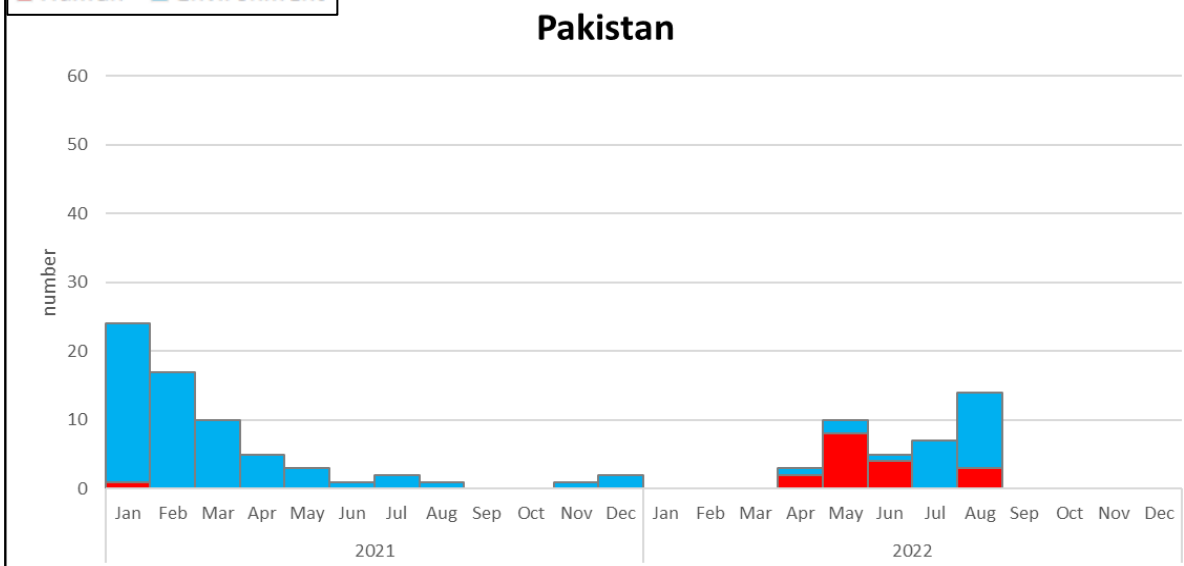
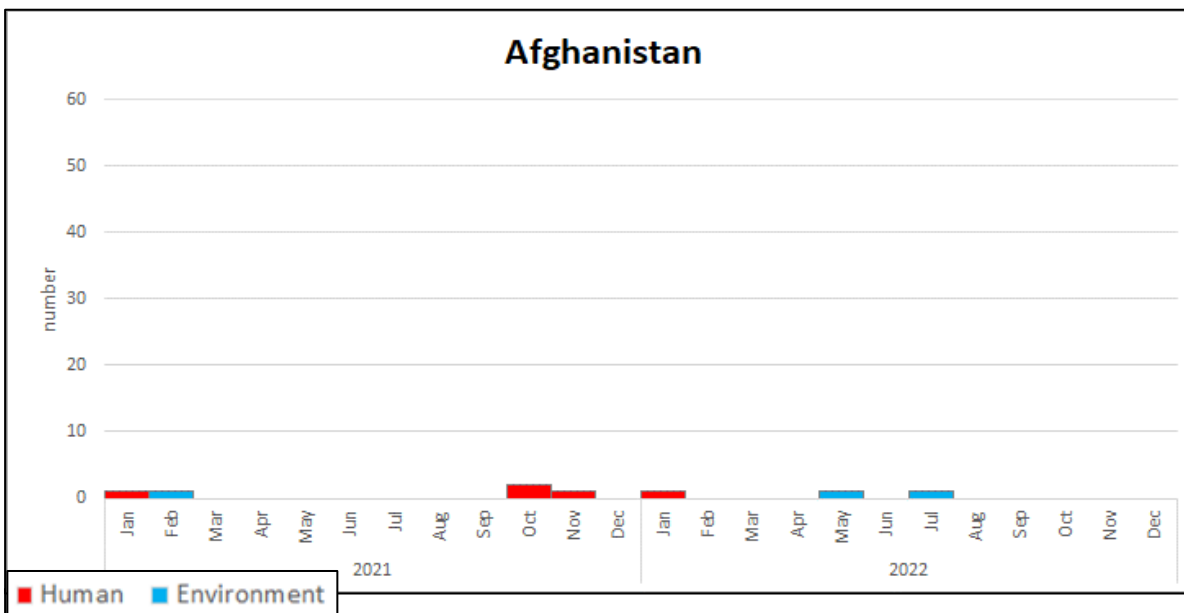


Stool adequacy



WPV1 Positive isolates from Afghanistan and Pakistan by source

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Virus isolation by country, last 12 months (Sep 11, 2021 to Sep 11, 2022)

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Source / Virus type	AFG	DJI	PAK	EGY	IRN	JOR	SOM	YEM	Total
Human (AFP only)	5		18				3	193	219
Wild	4		17						21
cVDPV2							3	190	193
aVDPV2	1		1					3	5
VDPV2									
Environment	2	17	34	14	2	3	4	13	89
Wild	2		25						27
cVDPV2		17		6			3	13	39
aVDPV2			9		1				10
VDPV2				8	1	3	1		13
Total	7	17	52	14	2	3	7	206	308

Note: Viruses isolated from 'other' sources (example healthy children) are not included in this analysis; they are shown in page No. (8)

Confirmed Wild Polio 1 Cases by month of onset

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Country	Total year 2020	Total year 2021	11 Sep.		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2021			2022									
			2021	2022	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Afghanistan	56	4	1	1	2	1	0	1	0	0	0	0	0	0			14-Jan-22
Bahrain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Djibouti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Egypt	0	0	0	0	0	0	0	0	0	0	0		0				
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0				
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Jordan ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Lebanon ****	0	0	0	0	0	0	0	0	0	0	0	0					
Libya	0	0	0	0	0	0	0	0	0	0	0	0					
Morocco	0	0	0	0	0	0		0	0	0	0						
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	84	1	1	17	0	0	0	0	0	0	2	8	4		3		09-Aug-22
Palestine ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Qatar	0	0	0	0	0	0	0	0	0	0	0	0		0			
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Somalia	0	0	0	0	0	0	0	0		0		0	0				
Sudan	0	0	0	0	0	0	0	0	0	0			0				
Syria ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
U.A.E	0	0	0	0	0	0	0	0	0	0	0	0			0		
Yemen	0	0	0	0	0	0	0	0		0							
EMR	140	5	2	16	2	1	0	1	0	0	2	8	4	0	3	0	09-Aug-22

**** UNRWA cases are included with those of country of residence

Investigation of AFP cases with paralysis onset in 2021 & 2022

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COUNTRY	2021									2022									Line List
	AFP cases	Case classification						Surveillance indicators		AFP cases	Case classification						Surveillance indicators		Date of latest
		Total Confirmed WPV1 Polio Cases *	Polio Compatible	Discarded (non Polio AFP)	VDPV ***	Pending classification > 90 days from onset	Pending LAB classification > 90 days from onset	Annualized Non polio AFP rate	% with adequate specimens ****		Total Confirmed WPV1 Polio Cases *	Polio Compatible	Discarded (non polio AFP)	VDPV ***	Pending classification > 90 days from onset	Pending LAB classification > 90 days from onset	Annualized Non polio AFP rate **	% with adequate specimens ****	
AFGHANISTAN	4088	4	1	4038	45	0	0	18.92	93.52	3608	1	0	3335	1	47	0	24.00	94.35	11-Sep-22
BAHRAIN	11	0	0	11	0	0	0	3.58	100.00	9	0	0	5	0	3	0	4.32	88.89	4-Sep-22
DJIBOUTI	8	0	0	8	0	0	0	2.06	75.00	14	0	0	14	0	0	0	4.93	57.14	11-Sep-22
EGYPT	1251	0	0	1250	1	0	0	3.17	90.89	922	0	0	818	0	12	0	3.36	90.35	8-Sep-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	502	0	0	466	0	0	0	3.56	97.21	10-Sep-22
IRAQ	709	0	0	709	0	0	0	4.08	91.26	576	0	0	470	0	54	0	4.76	92.01	10-Sep-22
JORDAN	47	0	0	47	0	0	0	1.19	100.00	55	0	0	54	0	0	0	1.91	98.18	8-Sep-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	29	0	0	25	0	1	0	4.51	96.55	11-Sep-22
LEBANON	39	0	0	39	0	0	0	2.45	89.74	30	0	0	16	0	6	0	2.71	80.00	10-Sep-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	60	0	0	51	0	0	0	3.33	100.00	3-Sep-22
MOROCCO	78	0	0	78	0	0	0	0.80	66.67	44	0	0	16	0	16	2	0.61	47.73	1-Sep-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	19	0	0	19	0	0	0	2.27	89.47	4-Sep-22
PAKISTAN	13118	1	4	13095	18	0	0	13.01	85.19	10851	17	1	9631	0	168	0	15.45	86.59	10-Sep-22
PALESTINE	16	0	0	16	0	0	0	0.85	100.00	10	0	0	7	0	0	0	0.71	100.00	11-Sep-22
QATAR	11	0	0	11	0	0	0	2.03	90.91	6	0	0	5	0	0	0	1.91	100.00	14-Aug-22
SAUDI ARABIA	217	0	0	217	0	0	0	2.59	93.55	146	0	0	100	0	0	0	2.43	97.26	11-Sep-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	237	0	0	209	3	0	0	4.11	97.89	11-Sep-22
SUDAN	636	0	0	636	0	0	0	3.26	94.34	445	0	0	382	0	12	2	3.28	96.40	8-Sep-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	259	0	0	235	0	0	0	4.84	94.59	10-Sep-22
TUNISIA	23	0	0	23	0	0	0	0.81	65.22	24	0	0	20	0	1	0	1.20	70.83	9-Sep-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	27	0	0	0	0	22	1	2.63	96.30	6-Sep-22
YEMEN	921	0	0	849	72	0	0	5.96	87.84	901	0	0	454	127	28	14	8.40	87.35	11-Sep-22
EMR POL	22799	5	5	22651	138	0	0	7.97	88.33	18774	18	1	16332	131	370	19	9.40	89.30	

* Confirmed polio cases refer to wild isolation from AFP cases or from contacts of negative index AFP cases

** Non-polio AFP per 100,000 children <15 years

*** Adequate here refers to two stool specimens collected at least 24 hours apart, with 14 days of paralysis onset and specimens received in the lab in 'Good Condition'

**** Includes all VDPV cases. Further details available in page (8)

Laboratory investigation of AFP cases with paralysis onset in 2022

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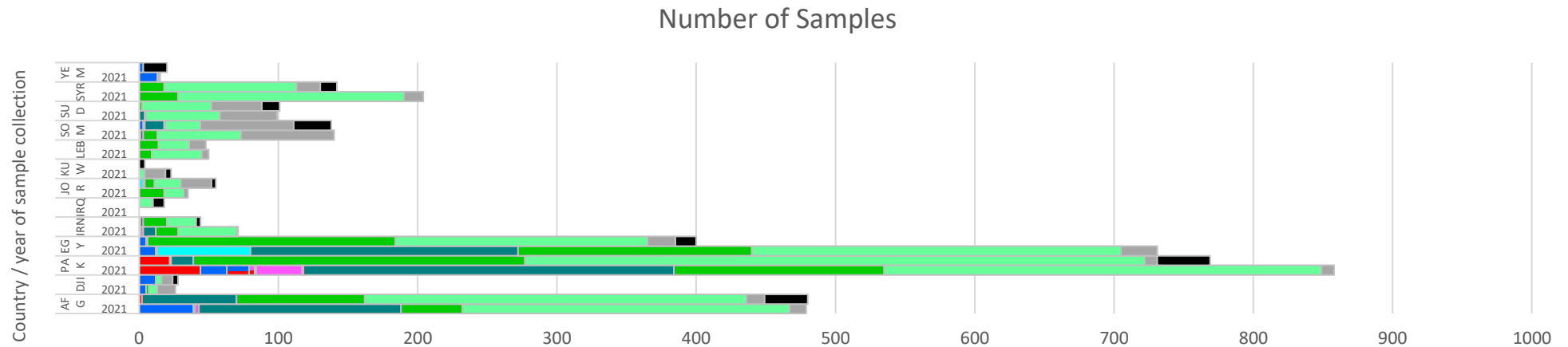
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators				Latest report Date	
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant pending sequence	NPEV by PCR	Non-EV	Pending ITD	% specimens positive for NPEV*	% AFP cases with culture results within 14 days	% AFP cases with ITD results within 7 days		% AFP cases with ITD results within 45 days of onset**
	Sequencing performed by CDC and RIVM laboratories		L20B+	L20B+ / NPEV			received within last 14 days	received more than 14 days ago	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV									
Afghanistan	RRL Pakistan	3560	209	35	635	2514	147	1	1	158			8			180				1	16%	96%	100%	99%	11-Sep-22	
Bahrain	NPL Oman / CDC	9				9															0%	100%		100%	8-Sep-22	
Djibouti	NPL Kenya / CDC	14	2		4	8				2			2			2					29%	71%		71%	11-Sep-22	
Egypt***	RRL Egypt	892	17	5	124	688	42	16		8						12		4	1		12%	99%	100%	99%	8-Sep-22	
Iran	NPL Iran / CDC	499	8		5	474	9	3		3	1					6					1%	100%	100%	99%	10-Sep-22	
Iraq	NPL Iraq, RRL Egypt	578	2		52	493	28	3								2				1	10%	100%	50%	99%	10-Sep-22	
Jordan	NPL Jordan, RRL Egypt	55	2		12	36	1	4								2					26%	100%	1	100%	8-Sep-22	
Kuwait	RRL Kuwait / RIVM	33	1			27	2	3		1						1		1	1		3%	100%	1	100%	11-Sep-22	
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	25	1			24															0%	100%			1-Sep-22	
Libya	RRL Tunisia / RIVM	64			1	58	4	1													2%	100%		100%	1-Sep-22	
Morocco	NPL Morocco, RRL Tunisia	38			3	33	2														7%	100%		92%	11-Sep-22	
Oman	NPL Oman / CDC	24			4	19	1														15%	83%		100%	8-Sep-22	
Pakistan	RRL Pakistan	10683	316	47	1988	7590	704	18	14 *	178			1			273					16%	96%	100%	96%	11-Sep-22	
Palestine & UNRWA		10				9	1														0%	33%		89%	11-Sep-22	
Qatar	NPL Oman / CDC	6	1			5				1											0%	83%	0	100%	8-Sep-22	
Saudi Arabia	NPL Saudi Arabia / CDC	123	2		3	108		10								2					3%	89%	50%	98%	15-Aug-22	
Somalia	NPL Kenya / CDC	237	9	1	40	163	8	19		2			9	3							19%	7%		99%	11-Sep-22	
Sudan	NPL Sudan / RRL Egypt	436	8		108	297	12	11										1			26%	67%	100%	22%	1-Sep-22	
Syria	NPL Syria / RRL Egypt	242	2		14	213	7	6													5%	100%			1-Sep-22	
Tunisia	RRL Tunisia	25				24		1													1%	100%		96%	1-Sep-22	
U.A.E	NPL Oman / CDC	27				27															0%	81%		63%	8-Sep-22	
Yemen	NPL Oman, NPL Kenya, RRL Egypt	771	156	3	93	446	72	1		8			6	124 **		19		13	1	1	1	14%	34%	28%	1%	11-Sep-22
Total EMR 2022		18351	736	91	3086	13265	1040	97	18	361	1		26	130		499		14	7	2	3	15%	92%	85%	93%	
Total EMR 2021		22113	1183	128	3874	16919		5	5	478	7		363	117		599	1	1	7	2	2	14%	97%	97%	93%	

* Three WPV1 cases are confirmed due to positive contacts (Index cases were negative for WPV1)

** Three cVDPV2 cases are identified by positive contacts (Index cases were negative for cVDPV2)

Environmental Surveillance Isolation by Classification

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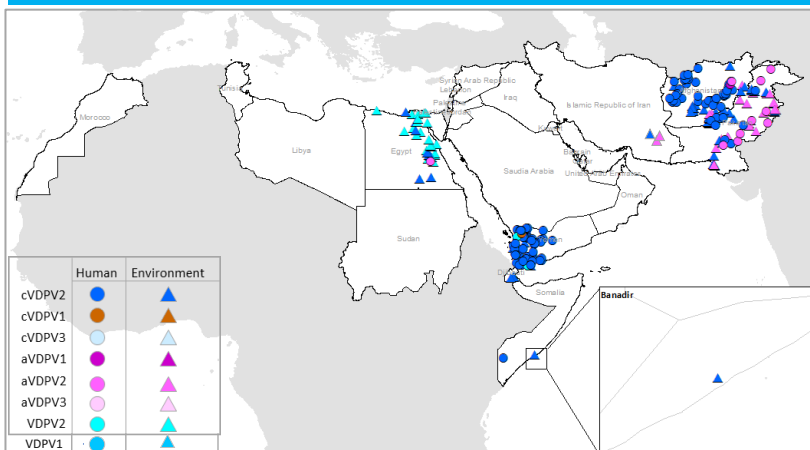


	AFG		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SOM		SUD		SYR		YEM	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Wild		2			44	22																				
cVDPV2	39		5	12	19		12	5	1										1	3					13	3
Wild+cVDPV2	1				16																					
Wild+aVDPV2					4																					
Wild+aVDPV3					1																					
aVDPV1																										
aVDPV2	3				33	1			2																	
aVDPV3																										
VDPV1					1		1																			
VDPV2							67	1	1				3						1							
SL2	145	68			266	16	192		9	2			1					2	14	4						
SL1/3	44	92	2		151	238	168	178	16	17			18	7			9	14	10	1	1	2	28	18	1	
Entero	235	274	6	4	314	445	265	181	42	21	10	14	19	4			36	22	60	25	53	50	162	95	1	
Negative	12	13	13	8	9	9	26	20	1				3	22	15		5	12	67	67	41	36	14	17		
Pending		31		4		38		15		3	8		3	4	4				27		13		12		17	

VDPVs isolations by Source and Country

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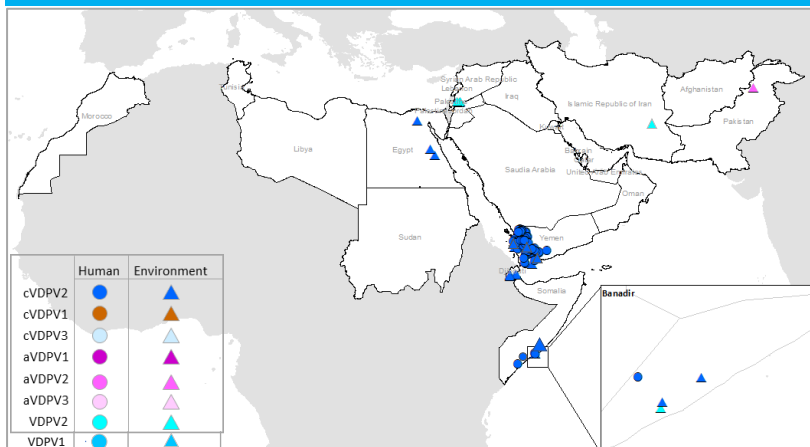
VDPV Isolates, EMR countries, 2021



VDPVs isolated from 2017-2022

VDPV Isolate type	EMR Country	Sources																												
		AFP cases(Human)						Contacts(Human)						Environment						Other Sources (Healthy Children)										
		2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent	
cVDPV2	Afghanistan				307	43		09-07-21											174	40		23-06-21								
	Djibouti																		5	12		22-05-22								
	Egypt																	12	5		28-04-22									
	Iran																	3	1		20-02-21									
	Pakistan			22	135	8		23-04-21										38	135	35		11-08-21								
	Somalia	6	3	14	1	3		14-05-22	3	1	11		3	22-02-22	2	19	5	26	1	3		19-05-22			1	5		1	10-03-22	
	Sudan				58			18-12-20			18			08-10-20				14				09-11-20				4			24-08-21	
	Syria	74						21-09-17	63					12-09-17									4						20-08-17	
	Yemen					66	127	18-07-22				23	33	21-05-22					13	3		31-01-22								
cVDPV1	Yemen			1	31	3		27-03-21		2				10-07-19																
cVDPV3	Somalia		7					07-09-18	7					30-06-18		12						23-08-18								
aVDPV1	Afghanistan					1		22-02-21																						
	Egypt																	1				16-07-20								
	Pakistan																		1			10-02-21								
	Somalia				1			26-01-20																						
	Yemen					1		20-07-21																						
aVDPV2	Afghanistan			3	1	1		01-01-22			75	15	1	14-02-22				2	3			25-07-21								
	Egypt					1		30-05-21				1		14-06-21				1				21-09-21								
	Iran																		2			23-09-21								
	Pakistan				7	8		24-09-21			8	19	1		28-04-21	5		3	22	37	1		15-02-22							
	Somalia															2	1					03-02-19								
	Yemen					3		01-11-21				1		09-12-21																
aVDPV3	Afghanistan				1			23-06-20																						
	Egypt																	2				30-09-20								
	Pakistan																		1			05-04-21								
	Libya					1		15-01-20																						
VDPV1	Egypt																	1				11-07-21								
VDPV2	Egypt																		67	1			12-01-22							
	Iran																			1			04-02-22							
	Jordan																		3				25-05-22							
	Pakistan																		1				15-02-22							

VDPV Isolates, EMR countries, 2022



Important links

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Important Links

- [Global Polio Eradication Initiative](#)
- [IMST – Outbreak Response Dashboard](#)
- [nOPV2 Tracker](#)
- [Pol-MIS](#) (restricted to registered users)
- [Containment](#) (restricted to registered users)